

Show all work clearly and in order, and circle your final answers.
Justify your answers algebraically whenever possible.

1. (2 points) Compute $\frac{d}{dx} \left[\frac{2x^3+1}{x^2-6} \right]$.

2. (2 points) Compute $\frac{d}{dx} \left[\frac{5x^2}{\sqrt[4]{x}} \right]$.

3. (2 points) Compute $\frac{d}{dx} \left[\frac{7x}{\sin(x)} \right]$.